

ABSTRACT

Mo of 0.05 to 1.0% by mass is adhered to the surfaces of an iron-based powder containing Mn of 0.5% by mass or less and Mo of 0.2 to 1.5% by mass as prealloyed elements by diffusion bonding, whereby an alloy steel powder is formed. Furthermore, a Ni powder of 0.2 to 5% by mass and/or a Cu powder of 0.2 to 3% by mass are added to the alloy steel powder, whereby a mixed powder for powder metallurgy is formed. The mixed powder for powder metallurgy according to the present invention enables production of sintered bodies having high density as well as superior tensile strength and rotating bending fatigue strength.